

B. Antenna System and Tower:

A dual polarized 3-bay halfwave spaced FM antenna will be side mounted near the top of an increased building / tower structure. Figure 3 is a sketch of the proposed structure. The antenna has a non-directional power gain of 1.01 H/V. The building owner will register the structure via a form 854 in the near future.

The antenna will be fed by 28 Meters (92 Feet) of 3" coaxial cable, with a rated efficiency of 97.0 percent for this length.

C. Transmitter:

WAMJ plans to install a type accepted 30 KW FM transmitter. The transmitter will be operated at 25.8 KW which is within its rated power.

D. Effective Radiated Power:

Giving consideration for the maximum antenna gain, transmitter power and line loss, the maximum Effective Radiated Power is 25 KW for the Horizontal and 25 KW for the Vertical Component.

E. Channel Allocation:

Figure 4 is a channel allocation study from the proposed site. This application is in full compliance with Section 73.207(a). It should be noted that the separation to WCGQ is 175.508 which rounds to 176 km and thus no short spacing will exist. In addition, WAMJ & WPEZ have entered into an agreement whereby WPEZ will amend its requested special reference point in MM Docket 98-18 to specify the following coordinates: 33-15-04 / 84-25-10. Thus the amended separation between WAMJ C3 and the WPEZ RM is 75.79 km which rounds to 76 km and

thus no short spacing will exist.

Since WAMJ's existing site is now properly spaced for C3 operation there is no actual requirement for it to use a different allotment point from the site proposed herein. However, WAMJ has no objection to its continued use.

F. Terrain Profile Data & Coverage:

Terrain profile data was extracted from NGDC 30 Second Digitized Terrain Data Base provided out of Boulder, Colorado. At least twenty-four bearings (every 15 degrees) were used to obtain the proposed coverage data. The standard eight bearings (every 45 degrees) were used to obtain the proposed HAAT.

The predicted service contours, as shown in Figure 2 of the attached report, were computed using a mathematical model adapted for computer use of the data shown in Figure 1 of Section 73.333. This is the Commission's computer program TV FM FS REPORT RS-76-01, dated January 1976.

The coverage map (Figure 2) does contain the original latitude and longitude markings as required by the FCC form 301. However, it was impossible to show the original degree indications for these markings due to the scale of the map being used (1:500,000). It is believed that verification of the site location is possible through use of the Topographic Map and Aeronautical Map which is also contained in this application.

Figure 2-A is a tabulation of the distances to the 70 dBu (3.16 mV/M - City Grade) & 60 dBu (1.0 mV/M - Primary) contours in Metric Units (Meters/Kilometers).

G. Terrain Profile to City of License:

The N-355-E radial is the direct path to the City of License. From the proposed site the 3.16 mV/M City Grade Contour will completely encompass the City of License without major terrain obstruction. It should be noted that this is the location of WAMJ's existing Class A operation.

H. Coverage Area and Population:

The area contained within the 60 dbu (1.0 mV/m) contour has been computed mathematically.

The population within this contour was obtained through a computerized analysis of the census designated places population data contained in the 1990 Census.

I. FM Blanketing Contour:

WAMJ recognizes its obligation to resolve related interference complaints for a one year period within its 115 dBu "FM Blanketing Contour" as required by Section 73.318 of the FCC Rules.

The radius around the base of the tower in which Blanketing interference is possible is fairly small (see Figure 2-A) and is in a sparsely populated area. Given the halfwave spaced antenna proposed, no problems are anticipated.

J. Other Services in Area:

There are NO known AM Broadcast Stations within 3.2 kilometers of the proposed site.

The roof top is currently used for cellular & SMR type operations all of which operate at a frequency above

800 MHz. Besides what exists on the building roof, there are no known transmission facilities within 60 meters (197 feet) of the proposed antenna.

There are no known FM and one known TV transmitters (LPTV) within 10 kilometers (6.2 miles) of the proposed site, however, based on the type of transmitter proposed, and the frequency & power involved no intermodulation interference problems with existing transmitting facilities is expected. In the unlikely event some problems would occur, WAMJ will investigate and correct such cases in accordance with the Commission's Rules.

K. Environmental Assessment Statement:

WAMJ believes its proposal will not significantly affect the environment since it does not meet any of the criteria specified in Section 1.1307 of the rules. Since an existing building / tower will be used with with only a 15' increase in overall height the only remaining environmental issue is R.F. Exposure. Specifically the proposed facility:

1. Will NOT involve the exposure of workers or the general public to levels of radiofrequency radiation in excess of the guidelines recommended by the FCC - OET Bulletin 65 (August 25, 1997).

The following is a more detailed discussion of this protection standard:

a. National Environmental Policy Act of 1969:

In 1969, Congress enacted the National Environmental Policy Act (NEPA), which requires the FCC to evaluate the potential environmental significance of the facilities it regulates and

authorizes. Human exposure to Radio Frequency (RF) radiation has been identified as an issue the FCC must consider.

Beginning with the filing of applications after January 1, 1986, broadcast stations were required to "certify compliance" with FCC prescribed guidelines on human exposure to RF radiation. The FCC standard was based upon the American National Standards Institute's (ANSI) RF radiation protection guides (ANSI C95.1-1982). These exposure limits are expressed in terms of milli-watts per square centimeter.

In October 1997, the FCC implemented a two tier evaluation criteria utilizing recommendations of the National Council on Radiation Protection and Measurement (NCRP). The "controlled" tier involves areas which have restricted access while the "un-controlled" tier involves areas which have unrestricted access. The Maximum Permissible Exposure (MPE) limits for "controlled" areas are the same as adopted in 1985 while the "un-controlled" limits for FM and TV frequencies are one-fifth or 20% of the limits for "controlled" areas.

RADIO STATION WAMJ (8/98)
Ch. 298C3 - ROSWELL, GA

MULLANEY ENGINEERING, INC.

These exposure limits are time-averaged over any six minute period and vary depending upon the frequency involved. The following are the Maximum Permissible Exposure (MPE) limits for "controlled" areas:

Frequency Range (MHz)		Power Density (mW/sq.cm)	
*****		*****	
0.3	to 3	100	AM
3	to 30	$900/(\text{Freq}^2)$	
30	to 300	1.0	VHF TV & FM
300	to 1,500	$\text{Freq}/300$	UHF TV
1500	to 100,000	5.0	

WAMJ recognizes that compliance with the above criteria at sites involving multiple AM, FM and/or TV facilities is based upon the contributions of all such facilities. At the site discussed in this application, the only significant facility that will exist is the proposed FM facility.

FM BROADCAST STATIONS

For FM Broadcast Stations the following formula is used:

$$D = \frac{\text{SQRT}(F^2 * [\text{HERP} + \text{VERP}])}{1.667 * \text{SQRT}(\text{PD}) * 3.2808}$$

Where:

- D = the closest distance in meters that a human should come to an operating antenna (to obtain feet multiply by 3.2808)
- F = typical relative field factor in downward direction (F = 1 is worst case main lobe)

HERP = Horizontal ERP in watts (above a dipole)
VERP = Vertical ERP in watts (above a dipole)
PD = highest Power Density in milli-watts/cm²
SQRT = Square Root
Freq = Frequency in mega-cycles/sec. (mHz)

The vertical radiation pattern of the FM antenna specified in this application is very narrow and, therefore, the power density as seen by an observer on the ground near the base of the tower will be less than 10 percent of the total ERP.

The application of the above equation (assuming maximum ERP), in our case, for a frequency of 107.5 MHz and a "un-controlled" Power Density of 0.2 milli-watts results in a minimum distance of 91.4 meters (300 feet) from the antenna. Inasmuch as the lowest element on the proposed antenna will be approximately 12.2 meters (40 feet) above roof level, additional analysis is required before one can conclude that no hazard will exist.

Figure 5 is a vertical elevation plot for an ERI 3 bay half-wave spaced FM antenna (LPX-3AC-HW).

Figure 5-A is a plot of the predicted RF Exposure at 7 feet above ground level. The "solid" line assumes a vertical form factor of $F=1.0$ while the "dashed" line uses the vertical form factor from Figure 5. As can be seen, the use of the 3 bay half-wave spaced FM antenna reduced the exposure at ground level below 450 uW/sq.cm or 45 percent of the standard for a "controlled" area. For FM, the

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"un-controlled" standard is 20% and, therefore, this proposal requires the roof to be a controlled environment.

This is WAMJ's existing Class A 6 kW site. The roof is controlled by a locked door. The entrance and roof are posted with appropriate RF Warning Signs. While not absolutely necessary, WAMJ plans to conduct a full set of R.F. Exposure Measurements prior to commencing automatic program test authority (PTA). WAMJ has currently provided several R.F. Exposure Monitors to be worn by workers while on the roof. A training course was also conducted.

Workers employed to climb the tower or work in a potential over-exposure location will not be permitted to enter the work area until cleared by the station manager or other responsible person. Appropriate warning signs are posted to insure safety. In addition, WAMJ has established work rules and safety procedures applicable in a potential over-exposure area. The establish how close a worker can get to the antenna when it is operating at normal power and specify the power reduction required in order to make other locations safe. It is recognized that maintenance or installation work on or near the antenna may require the station to completely shutdown or switch temporarily to an auxiliary antenna or an auxiliary transmitter site. Since this is a multiple use site, a single site access policy incorporating the above philosophy was established. All procedures will be reviewed &

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updated as necessary.

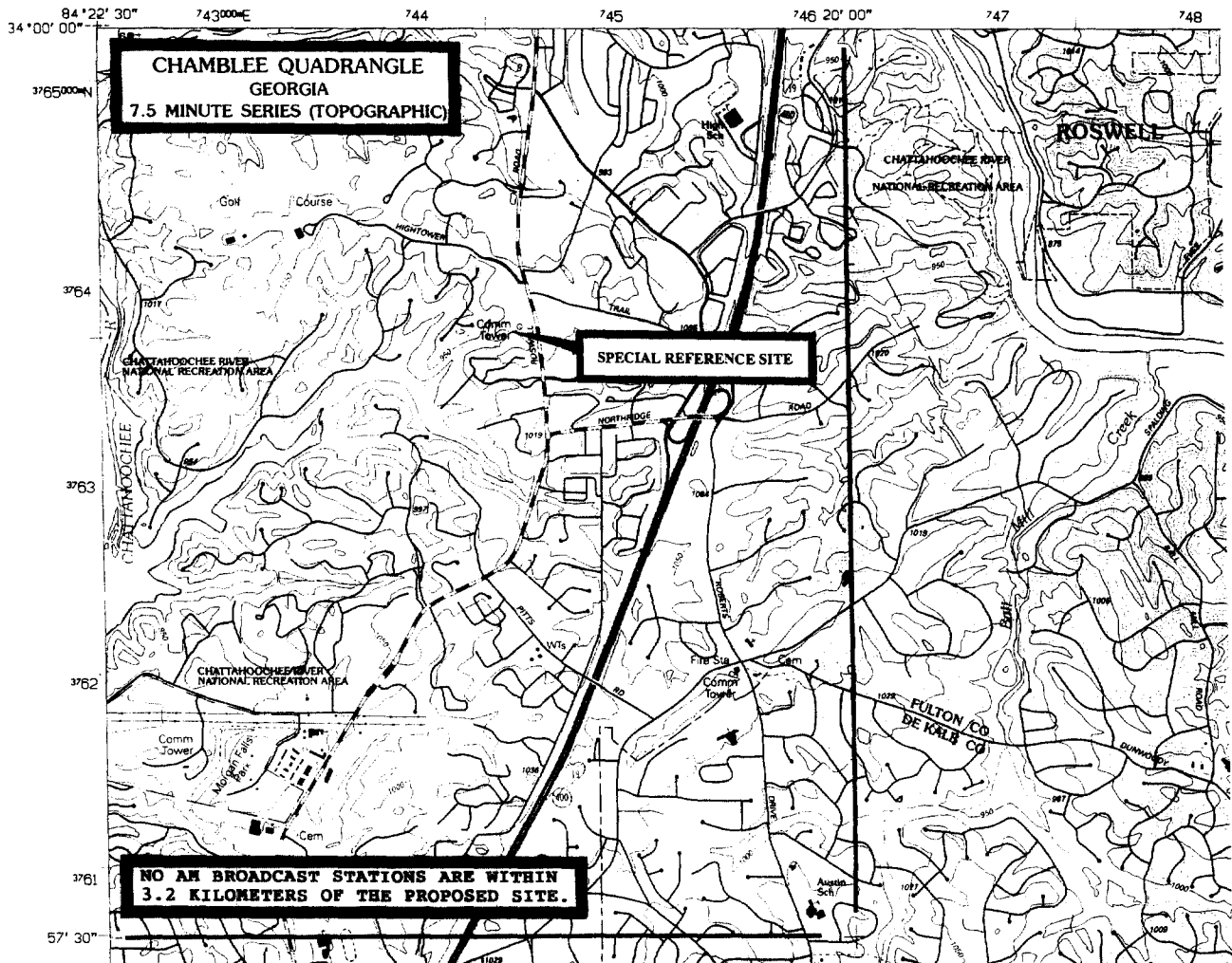
III. SUMMARY:

Dogwood Communications, Inc., licensee of Radio Station WAMJ at Roswell, Georgia, hereby amends its pending "one-step" C3 upgrade application to specify a different site (same site as current Class A facility, as corrected herein). This amendment eliminates all short spacings thus permitting an immediate grant of this application. This engineering proposal is in full compliance with the Commission's Rules.

August 3, 1998.


John J. Mullaney

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

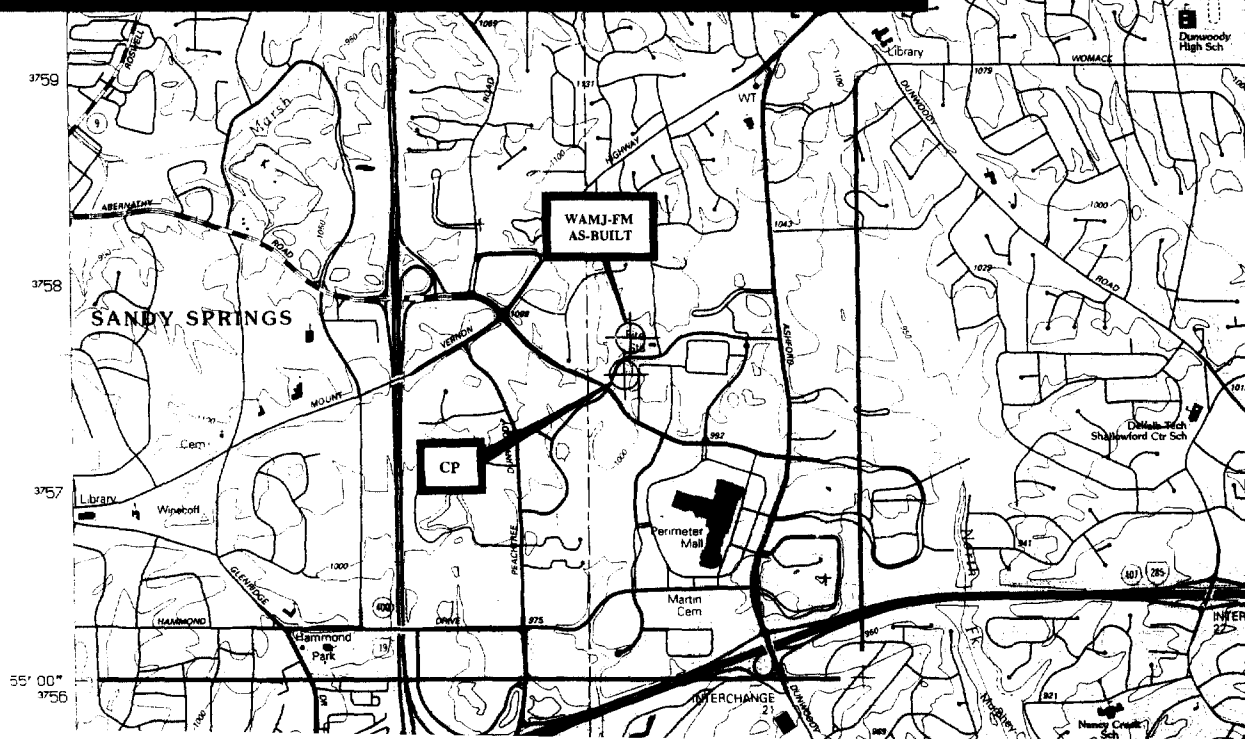


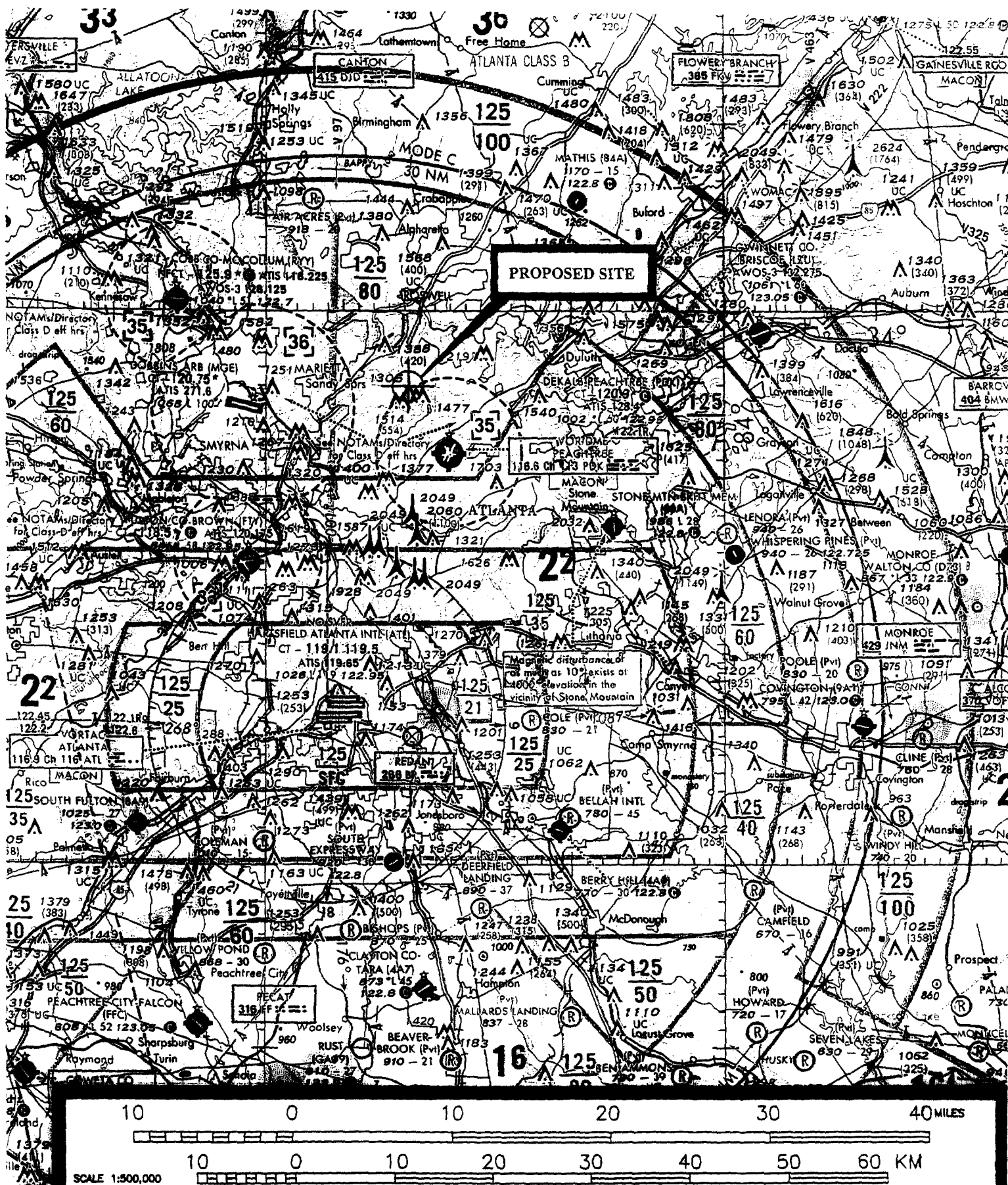
TOPOGRAPHIC MAP SHOWING PROPOSED SITE

RADIO STATION WAMJ
ROSWELL, GEORGIA
Ch. 298C3 25 KW 100 M HAAT

MULLANEY ENGINEERING, INC.
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FIGURE 1
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AERONAUTICAL MAP SHOWING PROPOSED SITE

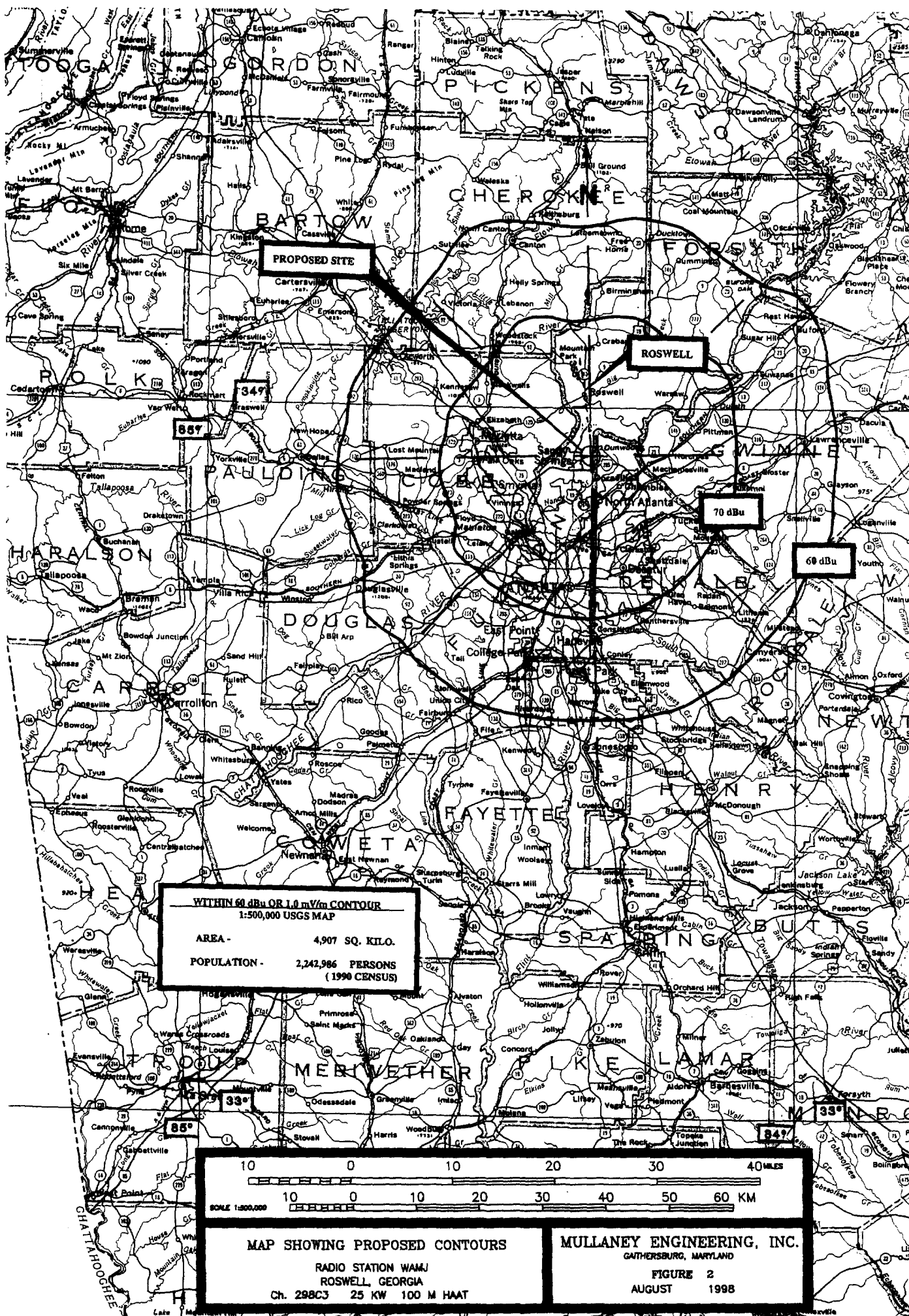
RADIO STATION WAMJ
ROSWELL, GEORGIA

Ch. 298C3 25 KW 100 M HAAT

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FIGURE 1-A

AUGUST 1998



FM COVERAGE

WAMJ - Revised C3 - Crown Point Bldg.

CHANNEL NO. 298 C3 FREQUENCY 107.5 MHZ

CENTER OF RADIATION 398.1 METERS AMSL

COORDINATES: 33-55-54 / 84-20-43

BEARING DEGREES *****		3-16 KM AVERAGE *****	C.R. HAAT *****	E.R.P. (KW) *****	DISTANCE (KM) TO CONTOURS (dBu)		
					115.0	70.0	60.0
					*****	*****	*****
0.	*	315.7	82.4	25.	2.0	21.1	35.9
15.		304.0	94.1	25.	2.0	22.5	38.1
30.		306.6	91.5	25.	2.0	22.2	37.7
45.	*	303.6	94.5	25.	2.0	22.5	38.1
60.		281.5	116.6	25.	2.0	24.9	41.5
75.		301.2	96.9	25.	2.0	22.9	38.6
90.	*	303.7	94.4	25.	2.0	22.5	38.1
105.		297.8	100.3	25.	2.0	23.3	39.1
120.		304.1	94.0	25.	2.0	22.5	38.0
135.	*	296.9	101.2	25.	2.0	23.3	39.3
150.		288.9	109.2	25.	2.0	24.1	40.6
165.		284.3	113.8	25.	2.0	24.6	41.2
180.	*	277.0	121.1	25.	2.0	25.3	42.2
195.		276.2	121.9	25.	2.0	25.4	42.3
210.		275.6	122.5	25.	2.0	25.4	42.3
225.	*	281.1	117.0	25.	2.0	24.9	41.7
240.		288.4	109.7	25.	2.0	24.3	40.6
255.		294.0	104.1	25.	2.0	23.7	39.7
270.	*	294.7	103.4	25.	2.0	23.7	39.6
285.		293.7	104.4	25.	2.0	23.7	39.7
300.		308.7	89.4	25.	2.0	22.0	37.2
315.	*	309.9	88.2	25.	2.0	21.9	37.0
330.		289.1	109.0	25.	2.0	24.1	40.6
345.		305.6	92.5	25.	2.0	22.4	37.8
CITY 355.		316.3	81.8	25.	2.0	21.1	35.7

AVERAGE (8) * 297.8 100.2 METERS

AREA IN SQUARE KILOMETERS 12.2 1690. 4907.

115.0 DBU BLANKET CONTOUR IS COMPUTED VIA SECTION 73.318

TABULATION OF PROPOSED CONTOURS

RADIO STATION WAMJ
ROSWELL, GEORGIA
Ch. 298C3 25 KW 100 M HAAT

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FIGURE 2-A

AUGUST 1998

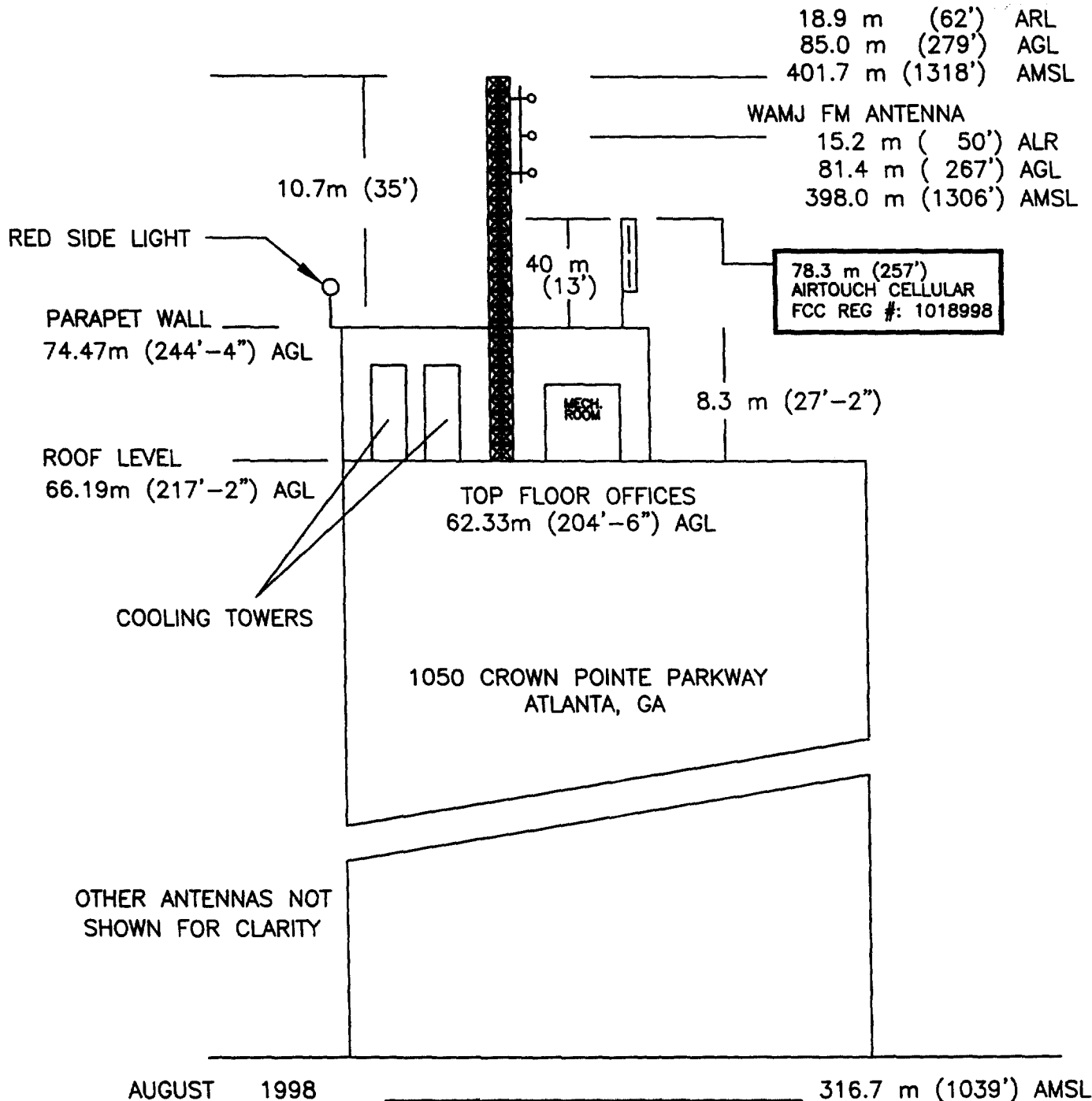
PAINTING AND LIGHTING IN ACCORDANCE
WITH F.A.A. SPECIFICATIONS.

NOT DRAWN TO
SCALE OR SHAPE

N. LAT.: 33-55-53.594
W. LON: 84-20-43.468 NAD 1927

FAA # : 98-ASO-1701-OE
(4/3/98)

N. LAT.: 33-55-53.960
W. LON: 84-20-43.200 NAD 1983



MULLANEY ENGINEERING, INC.
GAITHERSBURG, MARYLAND

FIGURE 3
VERTICAL SKETCH
RADIO STATION WAMJ
ROSWELL, GEORGIA
CH. 298C3 25 KW-DA 100 M HAAT

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***** FM CHANNEL STUDY NO. 1 - MULLANEY ENGINEERING, INC. GAITHERSBURG, MARYLAND - 31-JUL-98 14:31:26 *****
*****
***** LAST UPDATE: 980730 *****
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WAMJ	298 C3 FM	POLARIZATION	ERP (KW)	HAAT	RCANSL
ROSWELL (REVISED COORD) GA US			HOR PLN	BM TILT	(METER) (METER)
33.5554 84.2043 (D.MSS)		HORIZONTAL	24.500	0.000	101.2 399.
		VERTICAL	24.500	0.000	101.2 399.

REVISÉD GEOGRAPHIC COORDINATES FOR CROWN POINTE BUILDING

[illegible]

AZIMUTH						LAT	LONG		ERP (KW)		HAAT D I-CON P-CON				IR	IC	REZLT
FROM	TO	CALL	STS	FILE NUMBER	CITY	ST C	(D.MHSS)	REL CHN	HORZ VERT	(M) A F5010	F5050	DIST RSEP	RSEP	IR IC	REZLT		
									(KM)	(KM)	(KM)	(KM)	(KM)	(KM)			

301.3	120.9	WTSHEM	LIC	BLH921001KC	Rockmart	GA	A	34.1503	84.5905	2ND	296C2	45.H	45.V	158	68.8	56.	
202.3	21.9	WCGQ	LIC	BLH861124KA	Columbus	GA	A	32.2759	85.0323	1ST	297C	100.H	100.V	308	175.5	176.	S
61.3	242.3	WJHZFM	LIC	BLH790510AD	Anderson	SC	A	34.4206	82.3620	1ST	297C	100.H	100.V	308	181.5	176.	C
134.5	315.3	WDBN	LIC	BLH940315KA	Wrightsvi	GA	A	32.3705	82.4605	CD	298A	6.0H	6.0V	100	206.9	142.	
354.5	174.5		VAC		Roswell	GA	A	33.5911	84.2106	CD	298C3	H	V		6.1	153.	-
195.5	15.5	WAMJ	CP	BPH870727MF	Roswell	GA	A	33.5548	84.2045	CD	298A	6.0H	6.0V	98	0.2	142.	-
194.2	14.2	WAMJ	APP	BPH980309IE	Roswell	GA	A	33.5048	84.2216	CD	298C3	9.2H	9.2V	143E	9.7	153.	-

COMMENTOne-step application from Channel 298A

194.2 14.2 W298AA LIC BLFT810202KL Roswell, GA A 33.5048 84.2216 CD 298D .023H.023V D 12.4 3.9 9.7 51.5 117.2 W

COMMENTTRANSLATOR FOR WMBW, CHATTANOOGA, TN.

264.6 83.3 WRAX LIC BLH910708KB Birmingham AL A 33.4352 86.3757 1ST 299C 100.H100.V 377 212.9 176.

16.2	196.6	WIUKFM LIC	BLH911008KA	Knoxville TN A 35.4841	83.4010	1ST	299C	91.H	91.V	626	217.5	176.
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177.2	357.2	W300AB CP	BPFT910603YB Atlanta	GA A	33.4535	84.2007	2ND	300D	.100H	V	306	5.0	18.2	19.1	44.1	31.1 W
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COMMENTTranslator for WABE, Atlanta, GA.

150.8	331.2	WPEZ	LIC	BLH890221KA	Macon	GA	A	32.4512	83.3346	2ND	300C1	100.8	100.8	210	149.6	76.
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150.8	331.2	WPEZ	DEL	RM9204	Maccon	GA A 32.4512	83.3346	2ND	300C1	H	V	0	149.6	76.
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****DOCKET**98-18 ****

186.7	6.6	WPEZ	ADD	RN9204	Hampton	GA	A	33,1530	84.2621	2ND	300C1	H	V	0	75.2	76.	S
-------	-----	------	-----	--------	---------	----	---	---------	---------	-----	-------	---	---	---	------	-----	---

****COMMENT****Site Restriction 20.4km Southwest

****DOCKET**98-18 ****

185.2	5.2 WPEZ	AMENDMENT	Hampton	GA	A	33.1504	84.2510	2ND	300C1	H	V	0	75.8	76.	s
-------	----------	-----------	---------	----	---	---------	---------	-----	-------	---	---	---	------	-----	---

49.1 229.4 W300AP CP BPFT960315TB Gainesvil GA A 34.1802 83.4939 2ND 300D .013H.013V 85 1.7 5.7 62.9 40.8 18.6

****COMMENT****Translator for WYFW, Winder, GA.

[illegible]

THERE WERE 0 AM STATIONS WITHIN 6.43 KM (4 MI) OF THE FM REFERENCE COORDINATES

CHANNEL ALLOCATION

RADIO STATION WAMJ
ROSWELL, GEORGIA

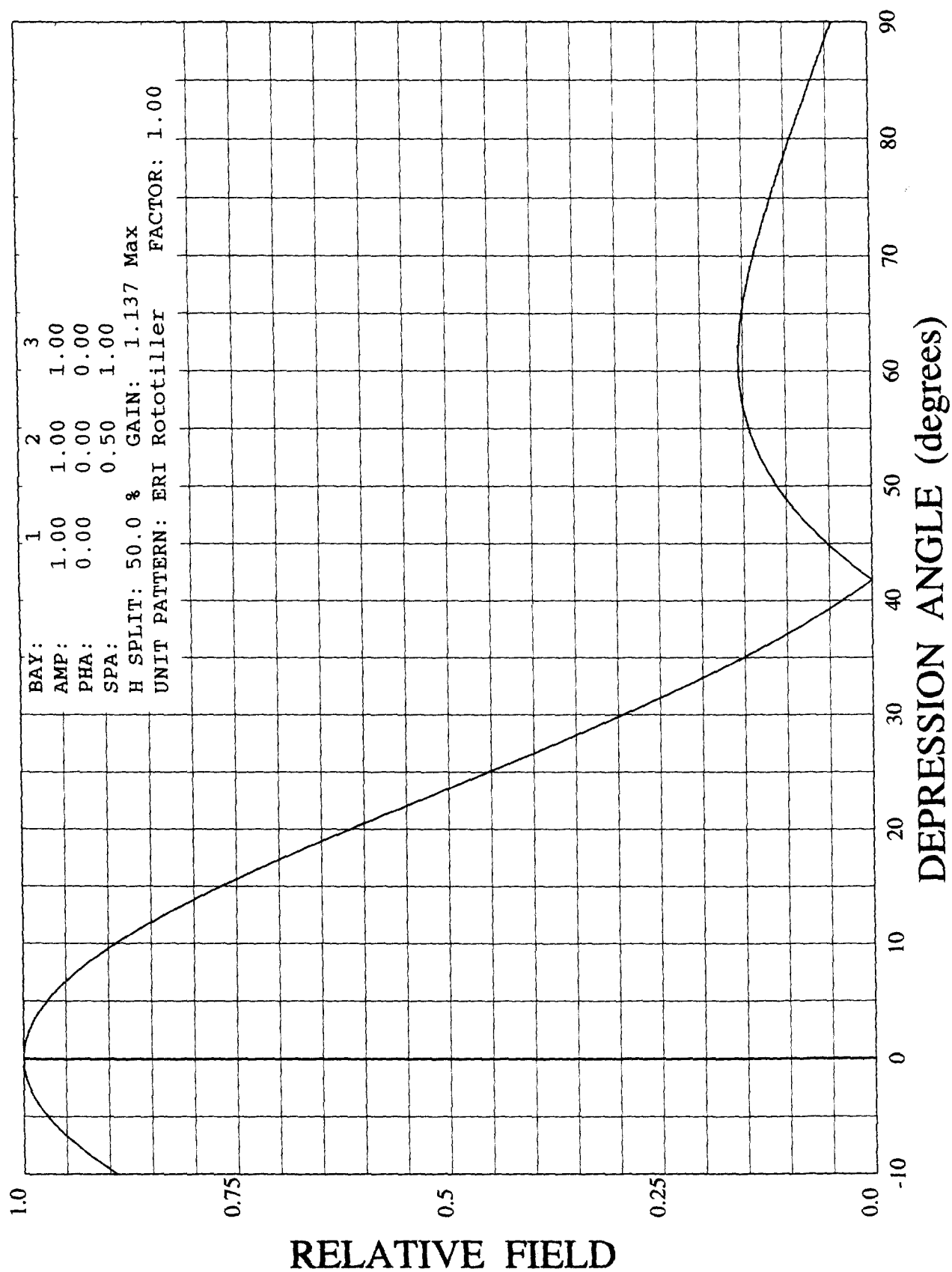
Ch. 298C3 25 KW 100 M HAAT

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GAITHERSBURG, MARYLAND

FIGURE 4

AUGUST 1998



3 - BAY FM ELEVATION PATTERN

RADIO STATION WAMJ - C3 UPGRADE
ROSWELL, GEORGIA

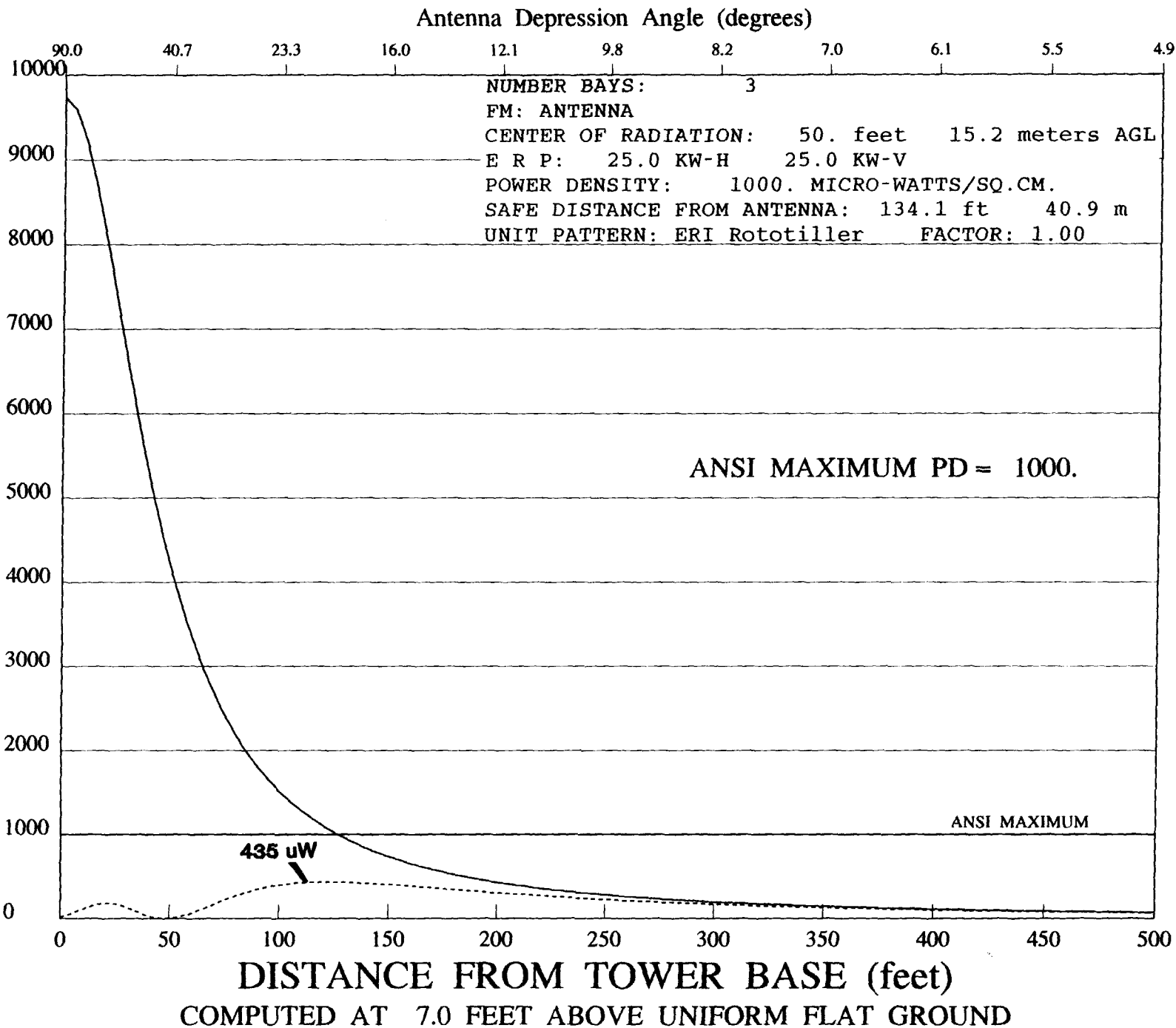
Mullaney Engineering, Inc.
Gaithersburg, Maryland

FIGURE 5
AUGUST 1998

R.F. EXPOSURE ANALYSIS
RADIO STATION WAMJ - C3 UPGRADE
ROSWELL, GEORGIA

Mullaney Engineering, Inc.
Gaithersburg, Maryland
FIGURE 5-A
AUGUST 1998

POWER DENSITY (uW/sq.cm)



CERTIFICATE OF SERVICE

I, Jonathan Levi, do hereby certify that I have served by mail, First Class postage prepaid, this 7th day of August, 1998, copies of the foregoing "Reply Comments" upon the following persons:

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